AMK AMKASYN

VARIABLE SPEED DRIVES

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Power factor under different loads

Determining the power factor:

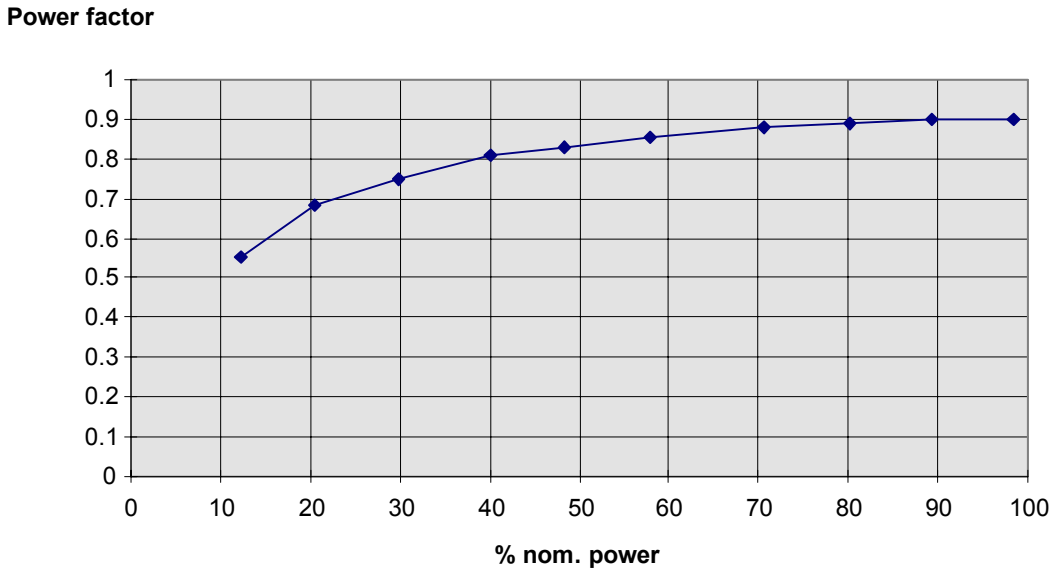
Apparent power: $S = \sqrt{3} \cdot Ueff \cdot Ieff$ Active power: $P = \frac{1}{T} \cdot \int_0^T \sqrt{3} \cdot u(t) \cdot i(t) dt$

Urms: rms value of the line voltage
Irms: rms value of the line current

T: Multiple of the period duration of the line voltage

Power factor: $\lambda = \frac{P}{S}$

The power factor is normally stated for nominal operation. λ becomes more unfavourable at lower utilization. The measured values for different active powers are plotted for a system with AN60 and AZ60:



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